

for decoding the demodulated data and transmitting the data transmitted from the light beam gun end to the ratio calculation circuit 112 to calculate the actual coordinates. Therefore, the wireless light beam gun of the embodiment utilizes the data in the monitor produced by the game player 1, along with the data transmitted from the light beam gun end, to calculate the actual X/Y coordinates by using the X/Y calculation circuit, a process that is the characteristic of this embodiment.

Please continue refer to Fig. 10, which shows the block diagram of the further embodiment of the invention. In the preferred embodiment of the invention, because all the pictures of the game are to be produced and controlled by the game player 1, the game player 1 can easily acquire the related data in the monitor like M_Total; at this time only the procedure of directly transmitting back the values of the S_Total and S_Buffer received by the receiver to the game player 1, the game player 1 can convert by itself the X/Y coordinates of the blips.

Please continue refer to Fig. 3, the wireless light beam gun device of this embodiment accords with the game player 1, which can produce all the video signals of the game pictures; the wireless game player end device of the wireless light beam gun device comprises a V_sync signal modulating circuit 201, used for modulating the V_sync signals; a demodulating circuit 204, used for demodulating the data transmitted from the light beam gun end adding the high-frequency clock oscillator 6; a buffer and the S_Total/S_Buffer/switch data decoder 208, used for decoding the demodulated data and transmitting, via the communication interface 3, the data transmitted from the light beam gun end back to the game player 1 to calculate the actual coordinates.

Although the present invention has been described in considerable detail with reference to certain preferred embodiments thereof, those skilled in the art can easily understand that all kinds of alterations and changes can be made within the spirit and scope of the appended claims. Therefore, the spirit and scope of the appended claims should not be limited to the description of the preferred embodiments contained herein.

WHAT IS CLAIMED IS:

1. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals, including:

parameter capturing circuit, used for capturing parameter data needed to calculate the video signal cycles;

oscillator counting circuit, used for counting the pulse number of the V_sync signal of said video signal;

wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal, said parameter data and said pulse number, and demodulating and decoding so as to acquire the blip coordinate data; and

communication interface, used for connecting said game player to transmit back said blip coordinate data; and

a wireless light beam gun device, comprising:

wireless receiving and transmitting device, used for demodulating and decoding so as to acquire said parameter data, V_sync signal and said pulse number, and transmitting said blip coordinate data to said wireless game player end device;

oscillator counting circuit, used for counting the pulse number of said V_sync signal;

photosensor, used for sensing the screen and generate blip signal; and

calculation circuit, used for calculating the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end, and calculating, coordinating with said parameter data, the blip coordinate data of the blip signal in said video signal cycle.

2. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals, including:

parameter capturing circuit, used for capturing parameter data needed to calculate the video signal cycles;

oscillator counting circuit, used for counting the pulse number of the V_sync signal of said video signal;

wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal, said parameter data and said pulse number, and receiving the pulse number counted by said V_sync signal in a wireless light beam gun end device;

calculation circuit, used for calculating the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end, and calculating, coordinating with said parameter data, the blip coordinate data of the blip signal in said video signal cycle; and

communication interface, used for connecting said game player to transmit back said blip coordinate data; and

said wireless light beam gun end device, comprising:

wireless receiving and transmitting device, used for receiving said V_sync signal, and transmitting the pulse number counted by said V_sync signal in said wireless light beam gun end device;

photosensor, used for sensing the screen and generate blip signal; and

oscillator counting circuit, used for counting the pulse number of said V_sync signal.

3. A wireless light beam gun, used with a game player, so as to generate blip signal relative to the aiming point on the screen and output said signal to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals, including:

oscillator counting circuit, used for counting the pulse number of the V_sync signal of said video signal;

wireless receiving and transmitting device, used for transmitting said V_sync signal and said pulse number to a wireless light beam gun end device, and receiving the ratio value of the pulse number counted by said V_sync signal in said wireless light beam gun end device;

pulse generator, used for outputting a reduced blip signal in said video signal cycle based upon said ratio value; and

communication interface, used for connecting said game player to transmit back said blip coordinate data; and

said wireless light beam gun end device, comprising:

wireless receiving and transmitting device, used for receiving said V_sync signal, and transmitting the ratio value of the pulse number counted by said V_sync signal in said wireless light beam gun end device;

photosensor, used for sensing the screen and generate blip signal;

oscillator counting circuit, used for counting the pulse number of said V_sync signal; and

ratio calculation circuit, used for calculating the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end.

4. A wireless light beam gun, used with a game player, so as to generate blip signal relative to the aiming point on the screen and output said signal to

said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals,
including:

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oscillator counting circuit, used for counting the pulse number of the
V_sync signal of said video signal;

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wireless receiving and transmitting device, used for transmitting said
V_sync signal to a wireless light beam gun end device, and receiving the
pulse number counted by said V_sync signal in said wireless light beam
gun end device;

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ratio calculation circuit, used for calculating the ratio value of the pulse
number of said V_sync signal based upon said pulse number counted in
both said wireless game player end and said wireless light beam gun end;

pulse generator, used for outputting a reduced blip signal in said video
signal cycle based upon said ratio value; and

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communication interface, used for connecting said game player to transmit
back said blip coordinate data; and

said wireless light beam gun end device, comprising:

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wireless receiving and transmitting device, used for receiving said V_sync
signal, and transmitting the pulse number counted by said V_sync signal in
said wireless light beam gun end device;

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photosensor, used for sensing the screen and generate blip signal;

oscillator counting circuit, used for counting the pulse number of said
V_sync signal.

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5. A wireless light beam gun, used with a game player, so as to generate blip
coordinate data relative to the aiming point on the screen and output said
signal to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals, including:

5 oscillator counting circuit, used for counting the pulse number of the V_sync signal of said video signal;

10 wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal and said pulse number to a wireless light beam gun end device a I, said parameter data and said pulse number, and receiving the ratio number of the pulse number counted by said V_sync signal in said wireless light beam gun end device;

15 gate circuit, used for outputting a pulse signal in said video signal cycle based upon said ratio value;

20 coordinate count circuit, used for receiving the pulse signal outputted by said gate circuit and latch the blip coordinate data in said video signal cycle; and

communication interface, used for connecting said game player to transmit back said blip coordinate data; and

25 said wireless light beam gun end device, comprising:

30 wireless receiving and transmitting device, used for demodulating and decoding said V_sync signal and said pulse number, and transmitting the ratio value of the pulse number counted by said V_sync signal in said wireless light beam gun end device;

35 oscillator counting circuit, used for counting the pulse number of said V_sync signal;

ratio calculation circuit, used for counting the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end; and

photosensor, used for sensing the screen and generate blip signal.

- 5 6. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said signal to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving the video signal, including:

10 oscillator counting circuit, used for counting the pulse number of the V_sync signal of said video signal;

15 wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal and said pulse number to a wireless light beam gun end device, and receiving the pulse number counted by said V_sync signal in said wireless light beam gun end device;

20 ratio calculation circuit, used for calculating the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end;

25 gate circuit, used for outputting a pulse signal in said video signal cycle based upon said ratio value;

coordinate count circuit, used for receiving the pulse signal outputted by said gate circuit and latch the blip coordinate data in said video signal cycle; and

30 communication interface, used for connecting said game player to transmit back said blip coordinate data; and

said wireless light beam gun end device, comprising:

35 wireless receiving and transmitting device, used for demodulating and decoding said V_sync signal and said pulse number, and transmitting the ratio value of the pulse number counted by said V_sync signal in said wireless light beam gun end device;

photosensor, used for sensing the screen and generate blip signal; and

oscillator counting circuit, used for counting the pulse number of said
V_sync signal.

7. A wireless light beam gun as in claim 1, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said oscillator; and buffer, used for saving the counted values latched by said counter.

8. A wireless light beam gun as in claim 2, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said oscillator; and buffer, used for saving the counted values latched by said counter.

9. A wireless light beam gun as in claim 3, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said oscillator; and buffer, used for saving the counted values latched by said counter.

10. A wireless light beam gun as in claim 4, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said oscillator; and buffer, used for saving the counted values latched by said counter.

11. A wireless light beam gun as in claim 5, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said

oscillator; and buffer, used for saving the counted values latched by said counter.

12. A wireless light beam gun as in claim 6, wherein said oscillator counting circuit, including high-frequency clock oscillator, can oscillate and thus acquire the pulse of the high-frequency clock; counter that is reset by said V_sync signal and count the pulse of the high-frequency clock from said oscillator; and buffer, used for saving the counted values latched by said counter.

13. A wireless light beam gun as in claim 1, wherein said calculating circuit is to calculate the cycle of said video signal based upon said parameter data, and then calculate the X/Y coordinates of the blip signal according to the ratio of the pulse numbers counted by said V_sync signals respectively in both the wireless game player end and the wireless light beam gun end.

14. A wireless light beam gun as in claim 2, wherein said calculating circuit is to calculate the cycle of said video signal based upon said parameter data, and then calculate the X/Y coordinates of the blip signal according to the ratio of the pulse numbers counted by said V_sync signals respectively in both the wireless game player end and the wireless light beam gun end.

15. A wireless light beam gun as in claim 1, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) \times the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

16. A wireless light beam gun as in claim 2, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) \times the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

17. A wireless light beam gun as in claim 3, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game

player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

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18. A wireless light beam gun as in claim 4, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

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19. A wireless light beam gun as in claim 5, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

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20. A wireless light beam gun as in claim 6, wherein said ratio value is : (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

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21. A wireless light beam gun as in claim 1, wherein said parameter data include the number of the horizontal scanlines, the width of the high H_sync signal, the width of the low H_sync signal and the width of the V_sync signal.

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22. A wireless light beam gun as in claim 2, wherein said parameter data include the number of the horizontal scanlines, the width of the high H_sync signal, the width of the low H_sync signal and the width of the V_sync signal.

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23. A wireless light beam gun as in claim 1, wherein the function of wireless transmission can be achieved by said wireless transmitting device and

said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

24. A wireless light beam gun as in claim 2, wherein the function of wireless transmission can be achieved by said wireless transmitting device and said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

25. A wireless light beam gun as in claim 3, wherein the function of wireless transmission can be achieved by said wireless transmitting device and said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

26. A wireless light beam gun as in claim 4, wherein the function of wireless transmission can be achieved by said wireless transmitting device and said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

27. A wireless light beam gun as in claim 5, wherein the function of wireless transmission can be achieved by said wireless transmitting device and said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

28. A wireless light beam gun as in claim 6, wherein the function of wireless transmission can be achieved by said wireless transmitting device and said wireless receiving device via transmission medium of infrared (IR) or radio frequency (RF).

29. A wireless light beam gun as in claim 1, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch decoding unit is included in said wireless game player end device.

30. A wireless light beam gun as in claim 2, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch decoding unit is included in said wireless game player end device.

31. A wireless light beam gun as in claim 3, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch

decoding unit is included in said wireless game player end device.

32. A wireless light beam gun as in claim 4, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch decoding unit is included in said wireless game player end device.

33. A wireless light beam gun as in claim 5, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch decoding unit is included in said wireless game player end device.

34. A wireless light beam gun as in claim 6, wherein a switch encoding unit is included in said wireless light beam gun end device, whereas a switch decoding unit is included in said wireless game player end device.

35. A wireless light beam gun as in claim 1, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

36. A wireless light beam gun as in claim 2, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

37. A wireless light beam gun as in claim 3, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

38. A wireless light beam gun as in claim 4, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

39. A wireless light beam gun as in claim 5, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

40. A wireless light beam gun as in claim 6, wherein an oscillator, capable of oscillating and thus acquiring the pulse of the high-frequency clock, is included in said wireless light beam gun end device or said wireless game player end device.

41. A coordinate calculation method, used in a wireless light beam gun to generate the blip coordinate data which, relative to the aiming point on the screen, is outputted to a game player; said wireless light beam gun comprises the wireless game player end device and the wireless light beam gun end device, said method including:

providing with a video signal to the wireless game player end device, for capturing the parameter data needed for calculating the video signal cycles;

providing with an oscillator counting circuit of said wireless game player end, for counting the largest pulse number of the V_sync signals of said video signals;

providing with an oscillator counting circuit of said wireless light beam gun end, for counting the largest pulse number of the V_sync signals of said video signals; and

calculating the blip coordinate data calculated from said video signal cycles by said parameter data out of said blip signals collected in said wireless light beam gun end device, according to the ratio for both the largest pulse number of the V_sync signals of both said wireless game player end device and said wireless light beam gun end device.

42. A signal generating method, used in a wireless light beam gun to generate the blip coordinate data which, relative to the aiming point on the screen, is outputted to a game player; said wireless light beam gun comprises the wireless game player end device and the wireless light beam gun end device, said method including:

providing with a video signal to the wireless game player end device, and separating and thus acquiring the V_sync signal;

providing with an oscillator counting circuit of said wireless game player end, for counting the largest pulse number of said V_sync signals of said video signals;

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providing with an oscillator counting circuit of said wireless light beam gun end, for counting the largest pulse number of said V_sync signals of said video signals;

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calculating the ratio of the blip signals being generated by the blip signals collected in said wireless light beam gun end device, according to the ratio for both the largest pulse number of the V_sync signals of both said wireless game player end device and said wireless light beam gun end device; and

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generating a recovered blip signal and outputting said recovered blip signal to said game player, according to said ratio of the blip signals being generated in said video signal cycles.

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43. A wireless light beam gun used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

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a wireless game player end device, used for receiving video signals, including:

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communication interface, used for connecting said game player and thus acquiring the parameter data used for calculating the video signals and the pulse number of the V_sync signal, and then transmitting back said blip coordinate data;

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wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal, and receiving the pulse number counted by said V_sync signal in a wireless light beam gun end device; and

calculation circuit, used for calculating the ratio value of the pulse number of said V_sync signal based upon said pulse number counted in both said wireless game player end and said wireless light beam gun end, and

calculating, coordinating with said parameter data, the blip coordinate data of the blip signal in said video signal cycle; and

said wireless light beam gun end device, comprising:

wireless receiving and transmitting device, used for receiving said V_sync signal, and transmitting the pulse number counted by said V_sync signal in said wireless light beam gun end device;

photosensor, used for sensing the screen and generate blip signal; and

oscillator counting circuit, used for counting the pulse number of said V_sync signal.

44. A wireless light beam gun as in claim 43, wherein said calculation circuit calculates said video signal cycle according to said parameter data, and calculate the X/Y coordinates of the blip signal according to the ratio value of the pulse numbers counted in both said wireless game player end and said wireless light beam gun end by said V_sync signals.

45. A wireless light beam gun as in claim 43, wherein said ratio value is (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

46. A wireless light beam gun as in claim 44, wherein said ratio value is (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

47. A wireless light beam gun as in claim 43, wherein said parameter data include the number of the horizontal scanlines, the width of the high H_sync signal, the width of the low H_sync signal and the width of the V_sync signal.

48. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

a wireless game player end device, used for receiving video signals, including:

wireless receiving and transmitting device, used for modulating and transmitting said V_sync signal, and receiving the pulse number counted by said V_sync signal in a wireless light beam gun end device; and

communication interface, used for connecting said game player to transmit back the pulse number counted in said wireless light beam gun end device; and

said wireless light beam gun end device, comprising:

wireless receiving and transmitting device, used for receiving said V_sync signal, and transmitting the pulse number counted by said V_sync signal in said wireless light beam gun end device;

photosensor, used for sensing the screen and generate blip signal; and

oscillator counting circuit, used for counting the pulse number of said V_sync signal.

wherein, said game player calculate the coordinate data of the blip signal according to said video signal cycle and the ratio value of the pulse number counted in both said game player and said wireless light beam gun end.

49. A wireless light beam gun as in claim 48, wherein said ratio value is: (the largest pulse number counted by said V_sync signal in said wireless game player end \div the largest pulse number counted by said V_sync signal in said wireless light beam gun end) X the pulse number of said blip signal latched in the cycle of said video signal at said wireless light beam gun end.

50. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

wireless light beam gun end device, including a light receiver and a wireless transmitting device, said light receiver can generate said blip signal to be modulated and transmitted via said wireless transmitting device; and

wireless game player end device, including a wireless receiving device and a pulse generator, said wireless receiving device demodulates and decodes and thus acquires said blip signal, and said pulse generator is to output a pulse signal to recover said blip signal, and then transmit back said recovered blip signal to said game player.

51. A wireless light beam gun, used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

wireless light beam gun device, including a light receiver and a wireless transmitting device, said light receiver can generate said blip signal to be modulated and transmitted via said wireless transmitting device; and

wireless game player end device, including:

a wireless receiving device, used for demodulating and decoding and thus acquiring said blip signal;

a correcting circuit to receive a video signal, and separate and thus acquire the V_sync signal, and after said adjusting circuit receiving said blip signal, acquired after being decoded, that is adjusted by a correcting circuit and ready to be corrected in the next picture; and

a pulse generator, used for receiving and adjusting said blip signal, and outputting a pulse signal to recover said blip signal, and then transmit back said recovered blip signal to said game player.

52. A wireless light beam gun as in claim 51, wherein said correcting circuit includes the counter that is to be reset in the counting state by V_sync signal; the buffer, used for saving the counting value latched by said blip signal acquired through decoding; and comparison device, used for
5 comparing the counting value from said counter and the corrected counting value from said correcting circuit, and activating said pulse generator to recover said blip signal and then transmitting back to said game player.

10 53. A wireless light beam gun as in claim 50, wherein said wireless light beam gun end device includes the encoder used for encoding said blip signal generated by said light receiver and switch data, and outputting said encoded blip signal and switch data to said wireless transmitting device.

15 54. A wireless light beam gun as in claim 51, wherein said wireless light beam gun end device includes the encoder used for encoding said blip signal generated by said light receiver and switch data, and outputting said encoded blip signal and switch data to said wireless transmitting device.

20 55. A wireless light beam gun as in claim 53, wherein said wireless game player end device includes decoder, used for decoding the signals demodulated by the wireless receiving device and thus acquiring said blip signal and switch data.

25 56. A wireless light beam gun as in claim 54, wherein said wireless game player end device includes decoder, used for decoding the signals demodulated by the wireless receiving device and thus acquiring said blip signal and switch data.

30 57. A wireless light beam gun used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

35 wireless game player device, including a wireless receiving and transmitting device; said light beam gun game player device receives video signals that are to be modulated and transmitted by said wireless transmitting device, and said wireless receiving device can demodulated and decode and thus acquire said blip coordinate data and then transmit

back to said game player;

wireless light beam gun end device, including:

5 a wireless receiving and transmitting device, used for receiving signals, decoding and thus acquiring the H_sync signals and V_sync signals, and transmit said blip coordinate data to said wireless light beam gun device;

10 light receiver, used for generating blip signals relative to said aiming points;

counter circuit, used for resetting the X/Y coordinate values through said H_sync signals and V_sync signals;

15 coordinate data buffer, used for saving temporarily the X/Y coordinate counting values that, being in said counter circuit latched by said blip signals, are to be deleted by said H_sync signals and V_sync signals;

20 said X/Y coordinate counting values saved by said coordinate data buffer are of said blip coordinate data.

25 58. A wireless light beam gun used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

wireless light beam gun device, including a light receiver and a wireless transmitting device; said light receiver can generate said blip signals that are to be modulated and transmitted by said wireless transmitting device; and

30 wireless light beam gun device, used for receiving said video signals, including:

35 a wireless receiving device, used for demodulating and decoding and thus acquiring said blip signals;

synchronized separation circuit, used for separating said H_sync signals and V_sync signals;

counter circuit, used for resetting the X/Y coordinate counting value by said H_sync signals and V_sync signals respectively;

5 said X/Y coordinate counting values saved by said coordinate data buffer are of said blip coordinate data.

10 59. A wireless light beam gun used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

15 wireless light beam gun device, including a light receiver and a wireless transmitting device; said light receiver can generate said blip signals that are to be modulated and transmitted by said wireless transmitting device; and

20 wireless light beam gun device, used for receiving said video signals, including:

25 a wireless receiving device, used for demodulating and decoding and thus acquiring said blip signals;

30 synchronized separation circuit, used for separating said H_sync signals and V_sync signals;

35 counter circuit, used for resetting the X/Y coordinate counting value by said H_sync signals and V_sync signals respectively;

40 coordinate data buffer, used for saving temporarily the X/Y coordinate counting values that, being in said counter circuit latched by said blip signals, are to be deleted by said H_sync signals and V_sync signals; and

45 a correcting circuit, used for correcting the X/Y coordinate counting value that, temporarily saved by said coordinate data buffer, is said blip coordinate data after correction.

50 60. A wireless light beam gun used with a game player, so as to generate blip coordinate data relative to the aiming point on the screen and output said

data to said game player; said wireless light beam gun comprising:

5 wireless light beam gun device, including a light receiver and a wireless transmitting device; said light receiver can generate said blip signals that are to be modulated and transmitted by said wireless transmitting device; and

10 wireless light beam gun device, used for receiving said video signals, including:

synchronized separation circuit, used for separating said H_sync signals and V_sync signals;

15 counter circuit, used for resetting the X/Y coordinate counting value by said H_sync signals and V_sync signals respectively;

a wireless receiving device, used for demodulating and decoding and thus acquiring said blip signals;

20 a correcting circuit, used for correcting said blip signal; and

25 coordinate data buffer, used for saving temporarily the X/Y coordinate counting values that, being in said counter circuit latched by said blip signals, are to be deleted by said H_sync signals and V_sync signals;

said X/Y coordinate counting values saved by said coordinate data buffer are of said blip coordinate data.

30 61.A wireless light beam gun as in claim 59, wherein said correcting circuit is of an adding device or detracting device.

62.A wireless light beam gun as in claim 60, wherein said correcting circuit is of an adding device or detracting device.

35 63.A wireless light beam gun used with a game player, so as to selectively generate blip coordinate data relative to the aiming point on the screen and output said data to said game player; said wireless light beam gun comprising:

5 wireless light beam gun device, including a light receiver and a wireless transmitting device; said light receiver can generate said blip signals that are to be modulated and transmitted by said wireless transmitting device, and demodulate and receive a synchronized signal; a controller is included to generate said blip signal and receive said synchronized signal, and control said wireless receiving and transmitting device; and

10 wireless light beam gun device, used for receiving said video signals, including:

a synchronized separation circuit, used for separating said synchronized signals from said video signals;

15 a wireless receiving and transmitting device, used for modulating and transmitting said synchronized signals and demodulating and receiving said blip signals;

20 a selecting switch, used for selectively generating said blip coordinate data or blip signals of said aiming points;

25 the first controller, used for receiving said blip signals and, in accordance with the selection by said selecting switch, outputting the blip coordinate data or recovered blip signals selected to said game player; and

the second controller, used for receiving said blip signal and said synchronized signals to calculate the blip coordinate data and output to said first controller.

30 64. A wireless light beam gun as in claim 63, wherein a correcting mechanism is further included to add or detract the signals transmitted from said wireless light beam gun end device to said game player end device of the light beam gun with a fixed delay period of time.

35 65. A wireless light beam gun as in claim 63, wherein a correcting mechanism is further included to delay said synchronized signal with a period of time.